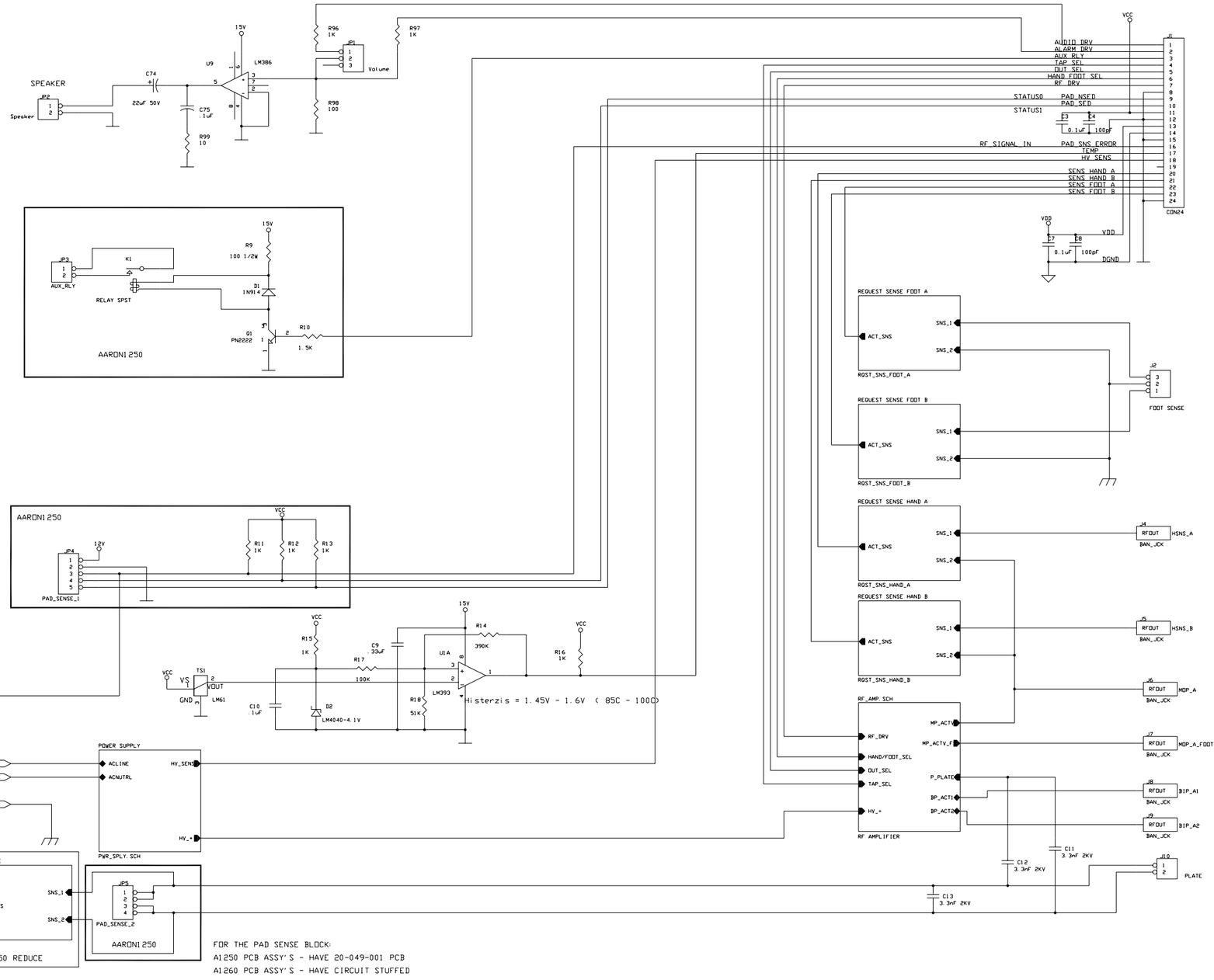
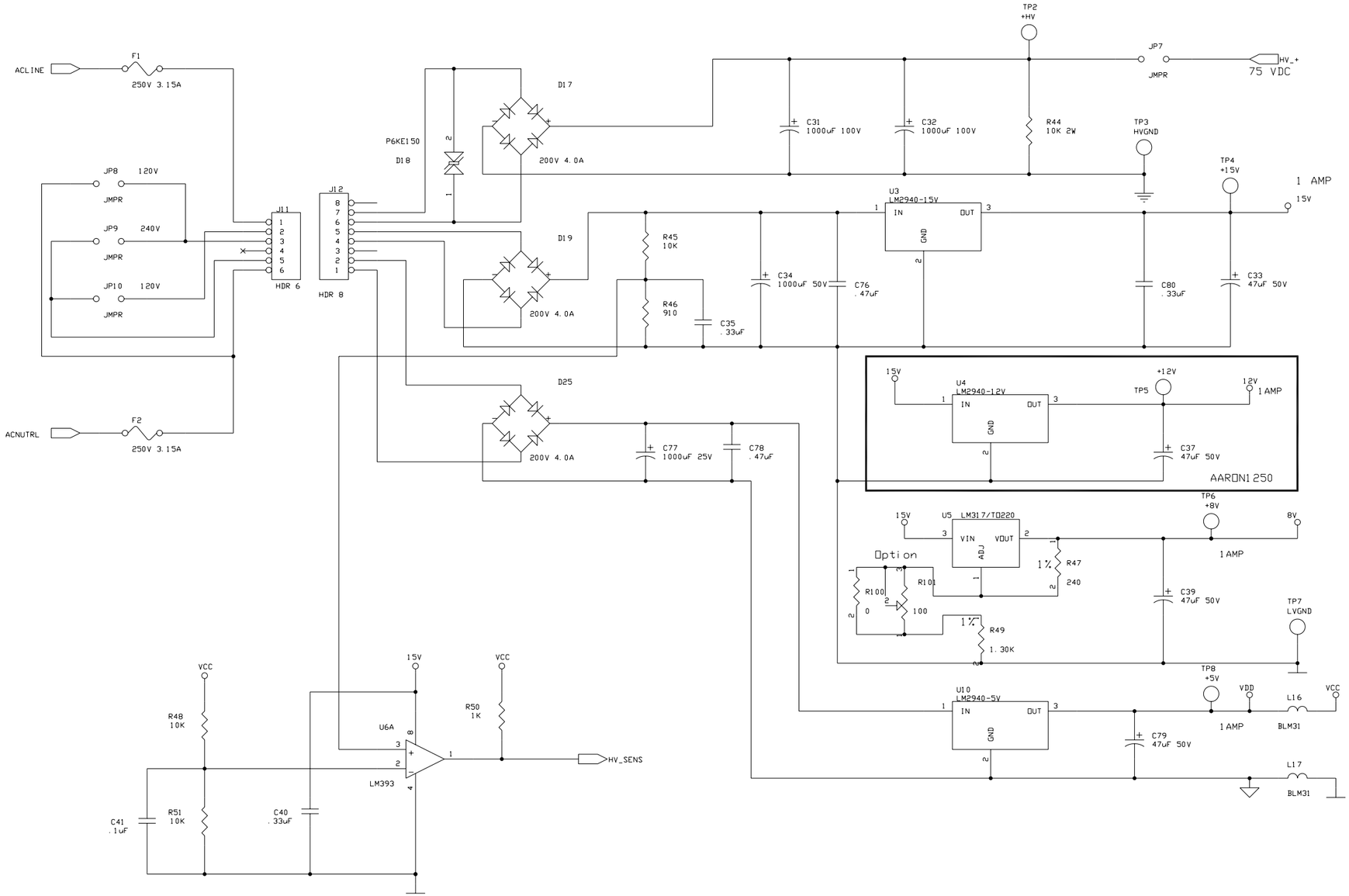
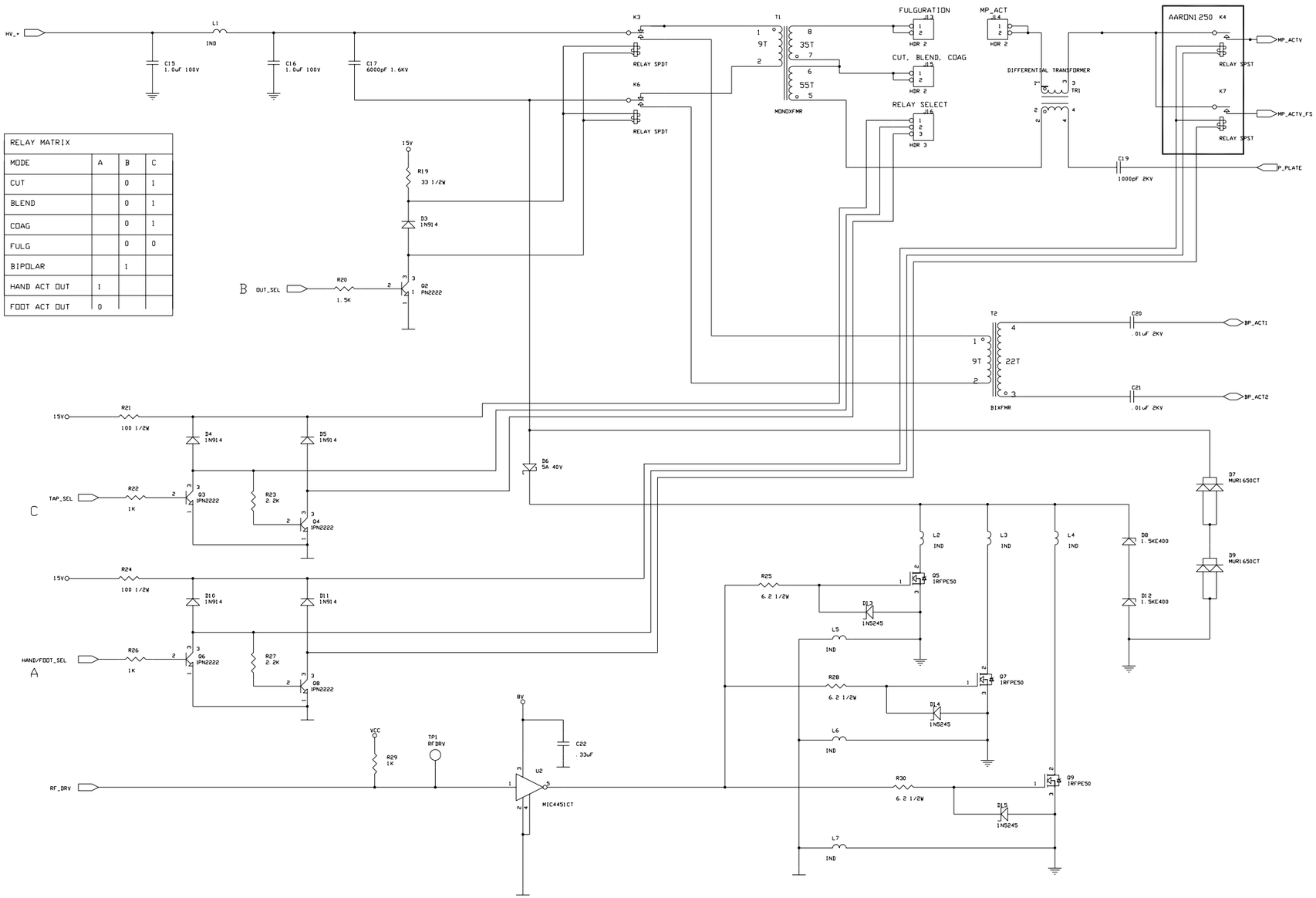
SCHEMATIC 1 MAIN BOARD



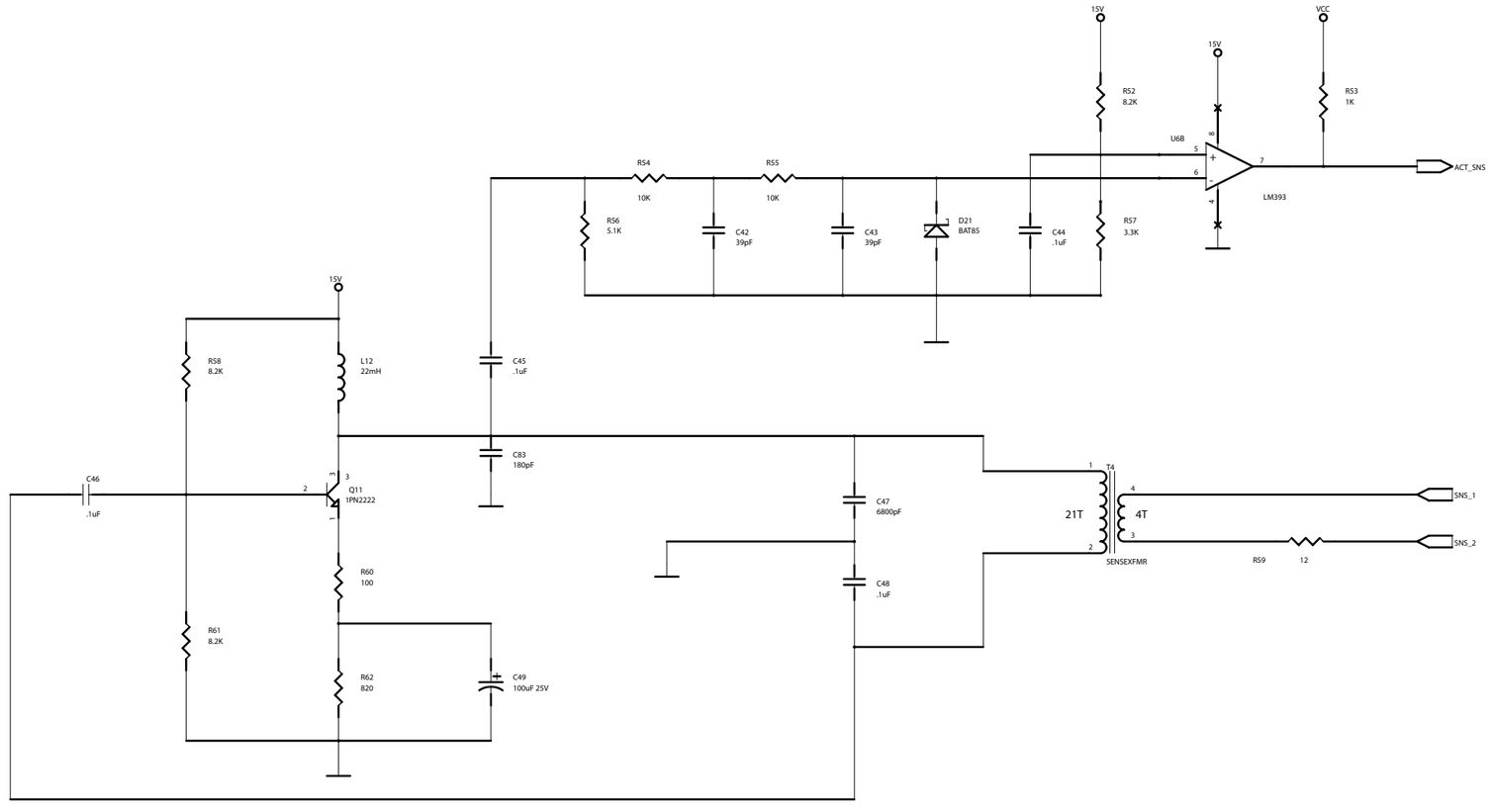
SCHEMATIC 2 POWER SUPPLY



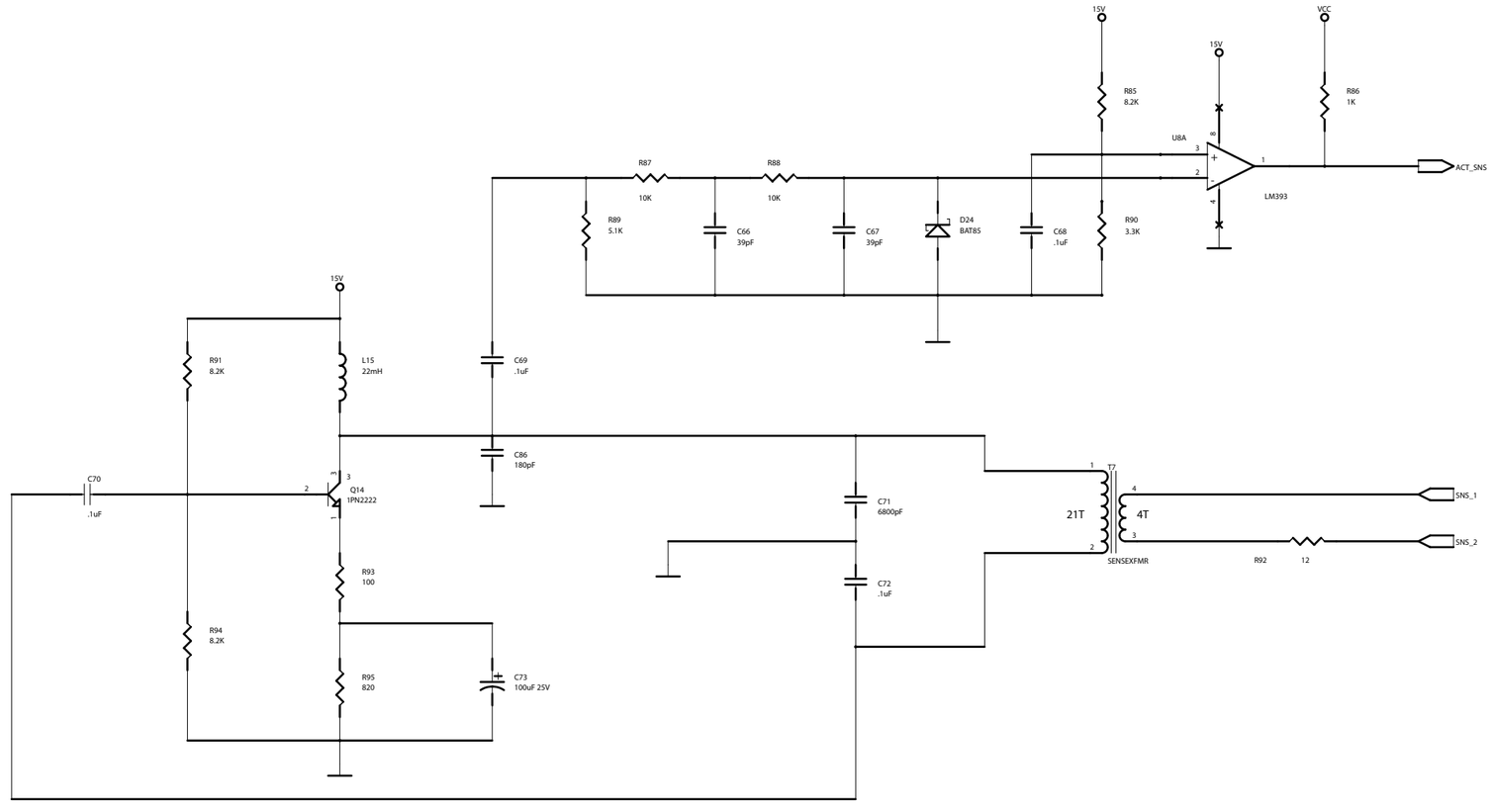
SCHEMATIC 3 RF AMPLIFIER CIRCUIT



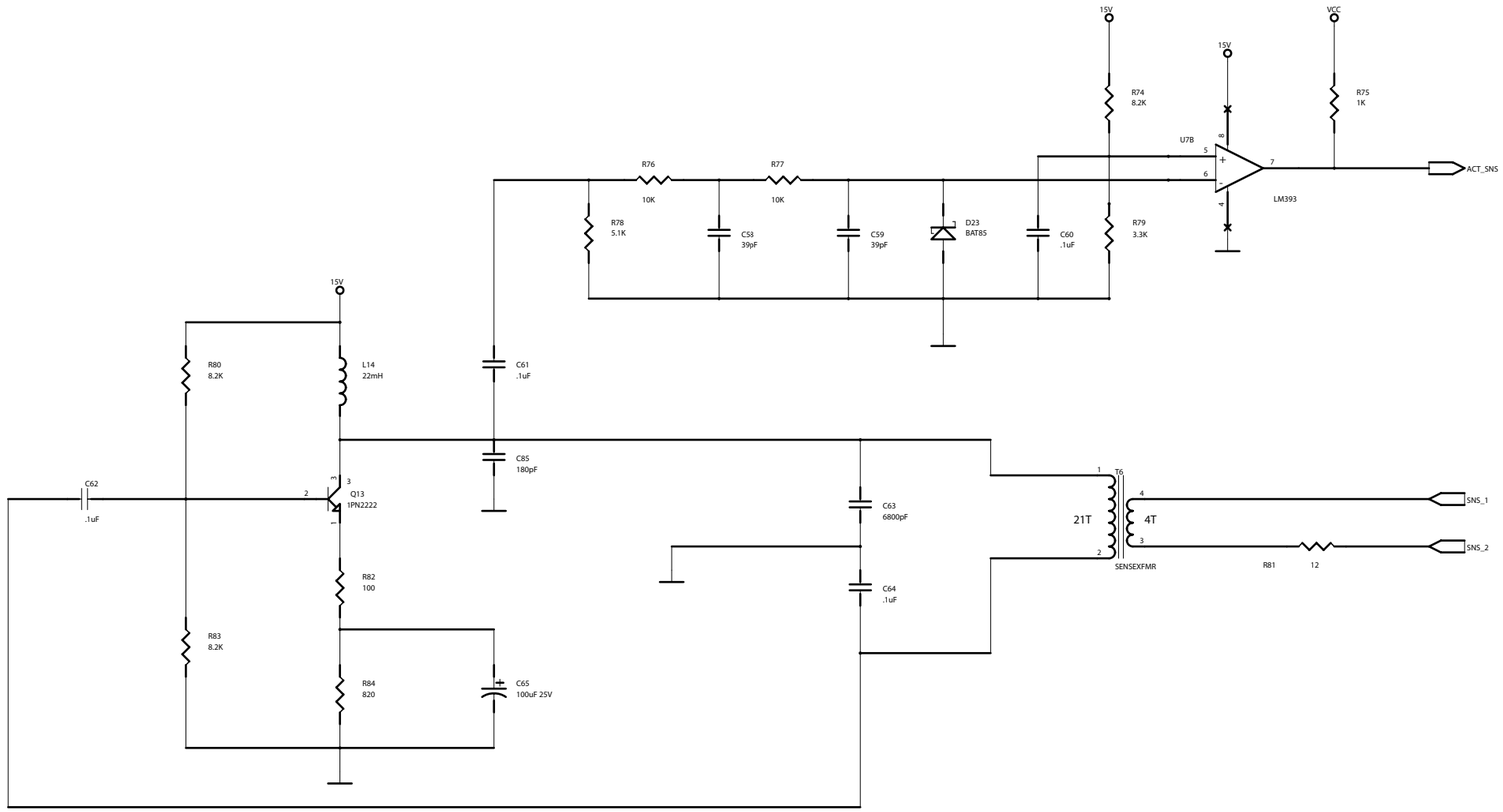
SCHEMATIC 4 REQUEST SENSE CIRCUIT HAND A



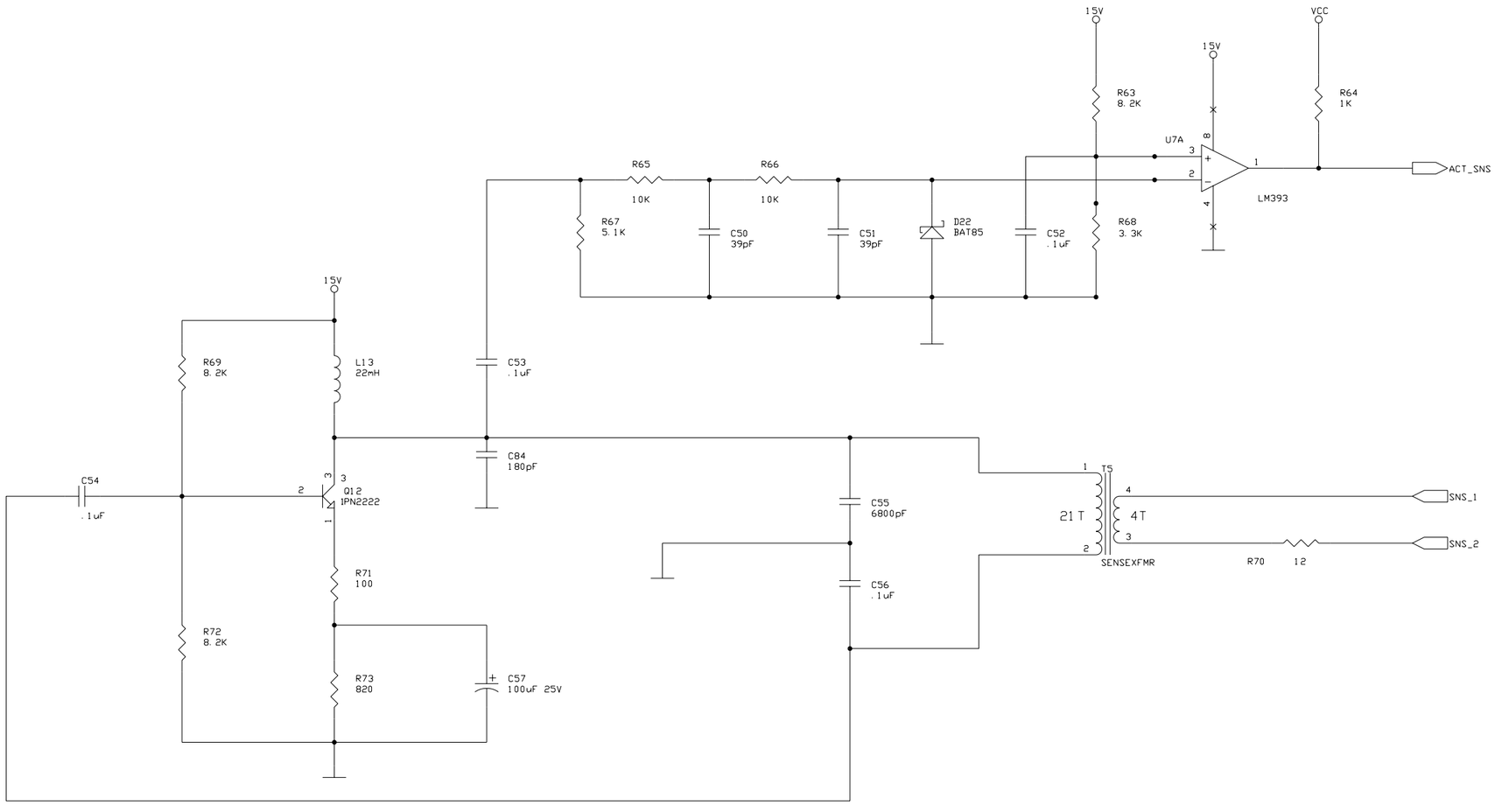
SCHEMATIC 5 REQUEST SENSE CIRCUIT HAND B



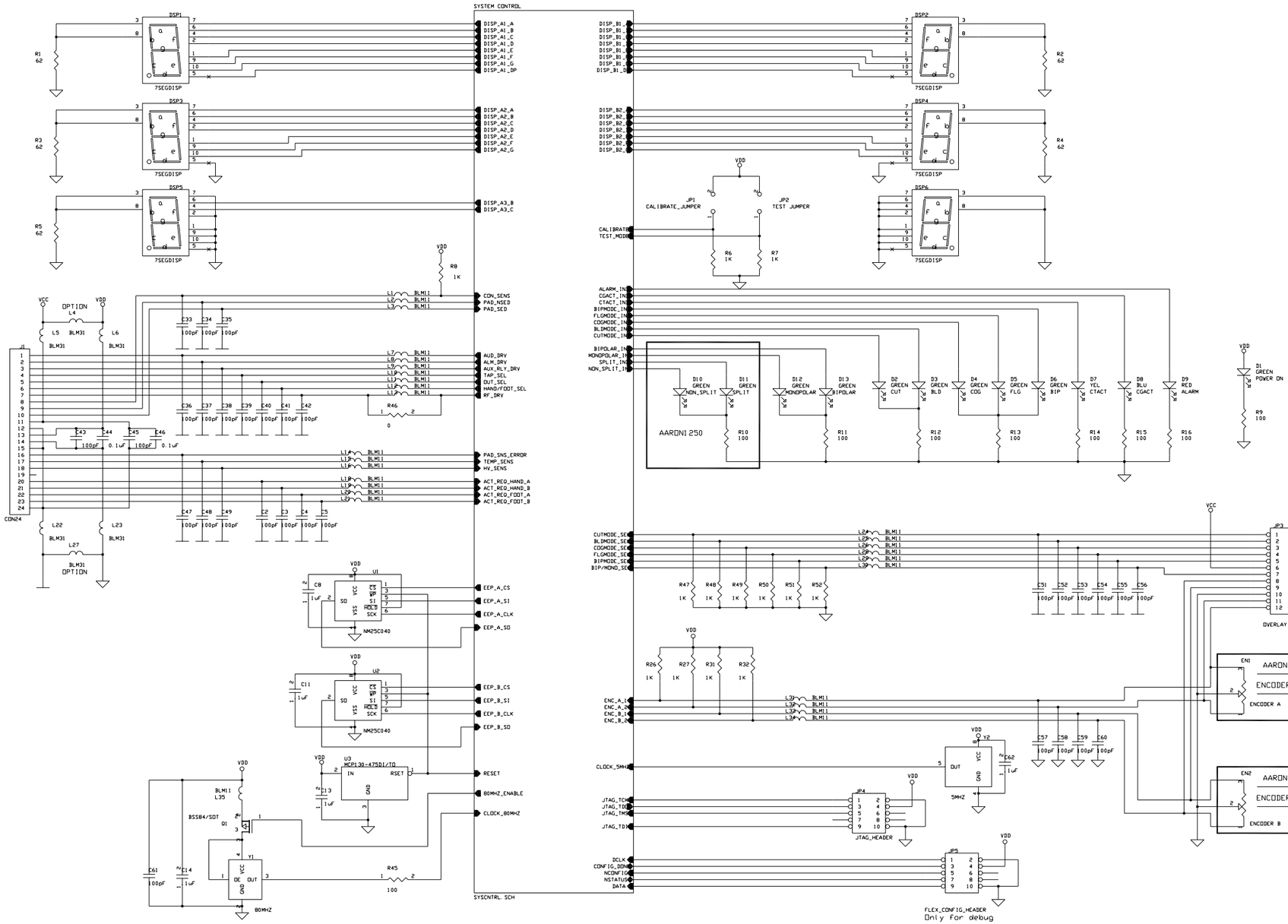
SCHEMATIC 6 REQUEST SENSE CIRCUIT FOOT A



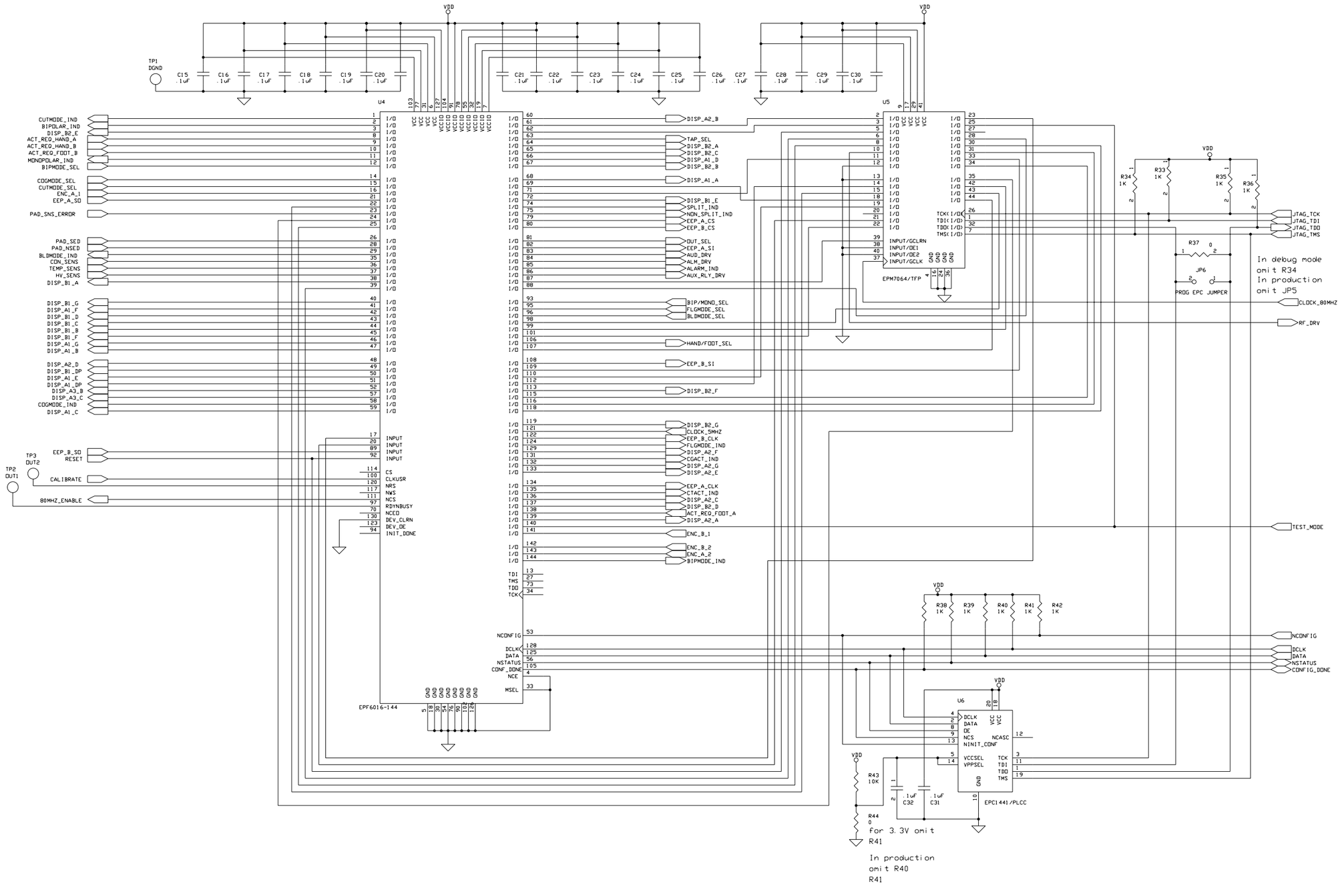
SCHEMATIC 7 REQUEST SENSE CIRCUIT FOOT B



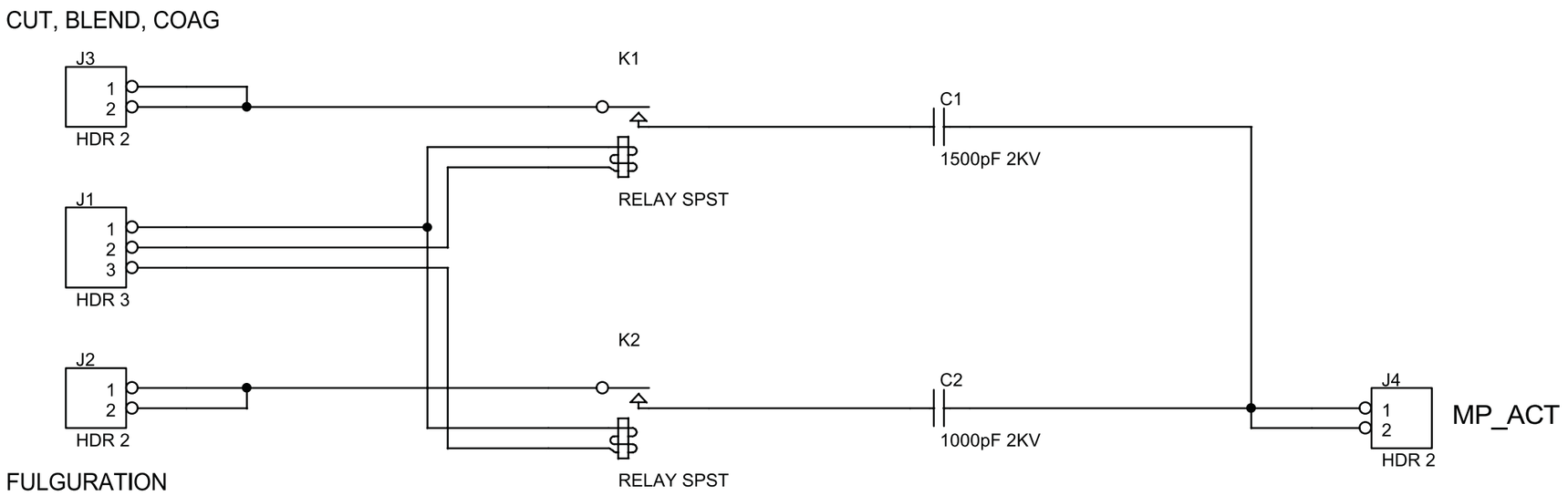
SCHEMATIC 8 DISPLAY BOARD



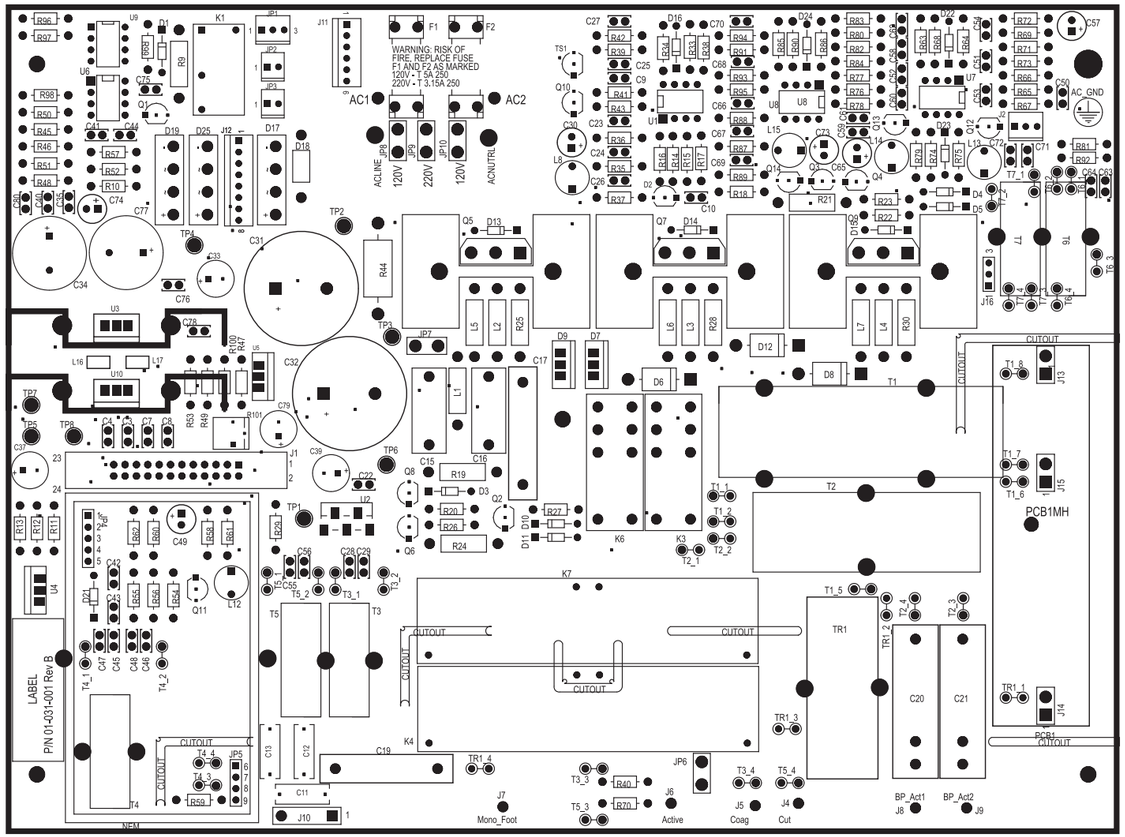
SCHEMATIC 9 DISPLAY LOGIC



SCHEMATIC 10 MONOPOLAR SELECT CIRCUIT



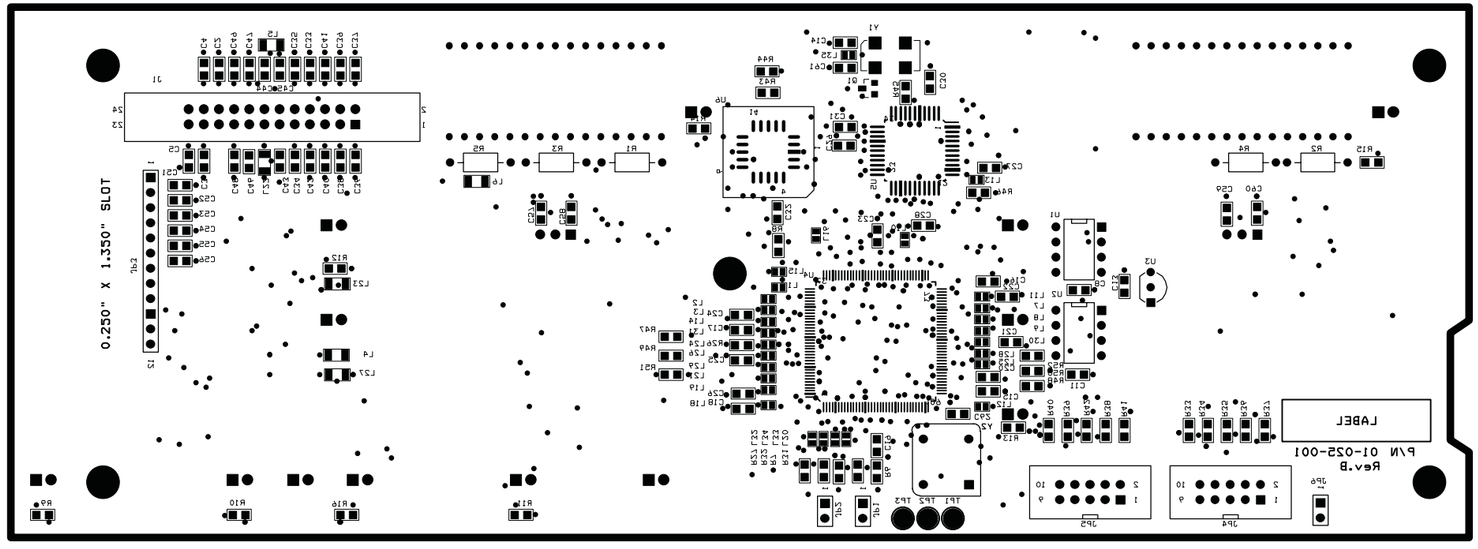
SCHEMATIC 11 MAIN PRINTED CIRCUIT BOARD



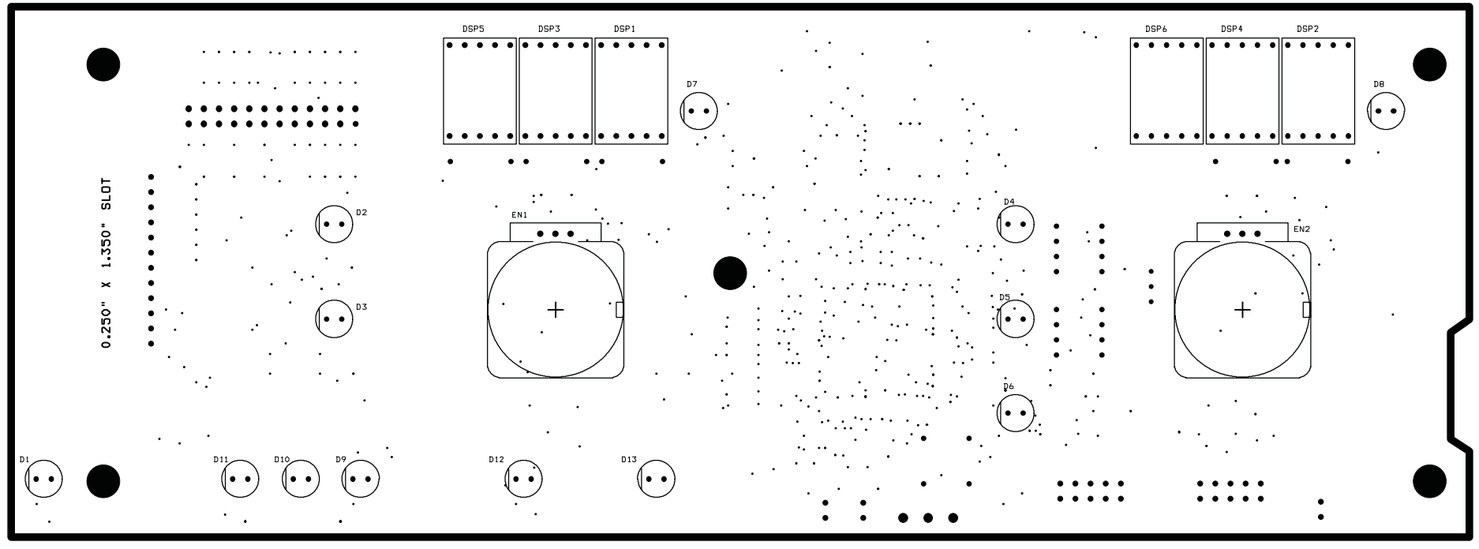
ITEM	COMPONENT - DESCRIPTION	REF:
Parent: 20-037-001	PCB ASSY MAIN	A1250
311005	CAP, CERAMIC 50 VDC	C8 C4
02-001-334	CAP, RADIAL, CER, Z5U, 50V	C9 C22 C35 C40 C80
02-001-104	CAP, RADIAL, CER, Z5U, 50V	C3 C7 C10 C25 C26 C27 C29 C41 C44 C52 C5 C62 C64 C68 C69 C70 C72 C75
02-201-001	CAPACITOR CERAMIC DISC HIGH	C11 C12 C13
02-047-102	CAP, RADIAL, POLYPROP, 2kV	C19
02-051-105	CAP, RADIAL, POLYESTER, 100V	C16 C15
02-057-602	CAP, RADIAL, POLYPROP, 1.6kV	C17
02-047-103	CAP, RADIAL, POLYPROP, 2kV,	C21 C20
02-003-390	CAP, RADIAL, CER, NPO, 100V	C23 C24 C50 C51 C58 C59 C66 C67
02-002-682	CAP, RADIAL, CER, X7R, 100V	C28 C55 C63 C71
02-005-107	CAP, RADIAL, ELECTRO, 25V	C30 C57 C65 C73
02-027-108	CAP RADIAL 1000Uf 50V,20%	C34 C77
02-028-108	CAP, RADIAL,ELECTRO,100V,20%	C31 C32
02-027-476	CAP RADIAL ELECTRO, 50V 20%	C37 C39 C33 C79
02-041-001	DIODE,SWITCHING, DO-35, 1N914	D1 D3 D4 D5 D10 D11
02-186-001	VOLTAGE REFERENCE 4 TO 1 V	D2
02-044-001	RECTIFIER,SCHOTTKY,BARRIER,5A	D6
02-078-001	RECTIFIER,DUAL,ULTRA FAST	D7 D9
02-086-400	SUPPRESSOR, VOLT, 1500W,	D8 D12
02-043-150	DIODE, ZEVER, DO-35, 500mW	D13 D14 D15
02-045-001	DIODE, SCHOTTKY, DO-34, 30V	D16 D22 D23 D24
02-066-200	BRIDGE RECTIFIER, 4A, 200V	D19 D17 D25
02-031-150	SUPPRESSOR, VOLT, 600W, 150V	D18
04-001-001	FUSE CLIP, PC MOUNT, 5x20mm	(F1 F2)
5108100039	CONN,3PIN,,100SP,MLX22-2	JP1 J2
5108100060	CONN,2PIN,,1 SP,MOL	JP2 JP3
07-005-001	PIN SOCKET, PCB,.040 DIA PIN	(JP6 JP7 JP8 JP9 JP10)
07-052-024	HEADER 0.100 X 0.100 SPA STRAIGHT Lk	J1
04-070-001	VERTICAL PC QUICK-FIT TERMINAL	J4 J5 J6 J7 J8 J9 J10
07-009-006	HEADER, POLARIZED, LKG,,1 SP	J11
02-065-001	RELAY, SPST, HI-VOLT, 7,5KV	K4 K7
02-069-001	RELAY,SPDT	K6 K3
02-082-001	SUPPRESSOR EMI (BEAD ON LEAD)	L1 L2 L3 L4 L5 L6 L7
02-020-001	INDUCTOR, RADIAL, 30mA, 22mH	L8 L13 14 L15
03-020-001	EMI FILTER SMT BLM31	L16 L17
02-019-001	TRANSISTOR, NPN, TO-92, PN2222	Q1 Q2 Q3 Q4 Q6 Q8 Q10 Q12 Q13 Q14
02-048-050	MOSFET, TO-247, 800V, IRFPE50	Q5 Q7 Q9
02-008-101	RES, AXIAL, FX, 1/4W, 5%	R41 R71 R82 R93 R98
02-007-138	RES AXIAL FX 1/4W 1% 240 OHM	R47
02-009-101	RES AXIAL FX 1/2W 5% 100 OHMS	R9 R21 R24
02-008-152	RES, AXIAL, FX, 1/4W, 5%	R10 R20
02-008-102	RES, AXIAL, FX, 1/4W, 5%, 1K	R15 R16 R22 R26 R29 R34 R50 R53 R64 R75 R97
02-008-394	RES AXIAL FX 1/4W 5% 390K OHMS	R14
02-008-104	RES, AXIAL, FX, 1/4W, 5%,	R17
02-008-513	RES AXIAL FX 1/4W 5% 51K OHMS	R18
02-009-330	RES,AXIAL,FX,1/2W,5%,33 OHM	R19
02-008-222	RES, AXIAL,FX,1/4W,5%,2.2K	R27 R23
02-009-062	RES, AXIAL, FX, 1/2W, 5%	R25 R28 R30
02-008-103	RES, 1/4W, 5% 10K OHM	R35 R36 R45 R48 R51 R65 R66 R76 R77 R87
02-008-822	RES, AXIAL, FX, 1/4W, 5%, 8,2K OHM	R33 R39 R42 R63 R72 R74 R80 R83 R85 R91 R52 R57 R69
02-008-512	RES, AXIAL, FX, 1/4W, 5% 5.1K OHM	R37 R67 R78 R89
02-008-120	RES AXIAL FX 1/4W 5% 12 OHM	R40 R70 R81 R92
02-008-821	RES, AXIAL, FX, 1/4W, 5% 820 OHM	R43 R73 R84 R95
02-011-103	RES, AXIAL, FX, 2W, 5%, 10K OHM	R44
02-008-911	RES, AXIAL, FX, 1/4W, 5% 910 OHM	R46
07-006-001	TEST POINT, SINGLE LOOP, BLK	TP1 TP2 TP3 TP4 TP5 TP6 TP7 TP8
19-037-001	TRANSFORMER DIFFERNTIAL COIL MONOPOLAR A1250	
08-016-002	X39/20/13 RING CORE	
5156100038	28 AWG HOOK UP WIRE BLK	
5156100039	28 AWG HOOK UP WIRE WHT 7X36 STR	
5156100064	TEFLON SLEEVING, 20 AWG	
11-004-003	TAPE CLOTH ELECTRICAL	
02-185-001	IC TEMPERATURE SENSOR LM61	TS1
19-010-001	TRANSFORMER, MONO, A1200 UK90	T1
08-005-001	KOOL Mu POWER CORE (BLACK) 2.250" OD X 1.400" ID	
5156100093	#24,RED,TFL INS,ALP 5854/7 7X32 STR	
09-007-004	WIRE,HOOK-UP TEFLON, 24 AWG GREEN UL 1180	
02-234-001	RELAY HIGH-VOLTAGE ASSEMBLY	J11
19-026-001	TRANSFORMER, XFMR SENSE A900	T2
02-224-181	CAP 50V 5% COG 180PF	R11 R12 R13
05-117-125	TRANSISTOR MOUNT	

ITEM	COMPONENT - DESCRIPTION	REF:
12-001-001	TUBING,TEFLON THINWALL	
11-004-003	TAPE CLOTH ELECTRICAL	
19-006-001	TRANSFORMER, BIPOLAR, A1200	T2
08-003-001	CORE,TOROID,1.57 OD, .95ID, 500V FINISH	
09-007-003	WIRE,HOOK-UP TEFLON 24 AWG RED UL 1180	
09-007-004	WIRE,HOOK-UP TEFLON, 24 AWG GREEN UL 1180	
12-001-001	TUBING,TEFLON THINWALL	
11-004-003	TAPE CLOTH ELECTRICAL	
19-026-001	TRANSFORMER SENSE A900 T3	T6 T7
11-004-003	TAPE CLOTH ELECTRICAL	
5156100006	TEFLON SLEEVING #18	
5156100039	28 AWG HOOK UP WIRE WHT 7X36 STR	
5156100040	HKUP WIRE,28AWG,TEFLON E RED 7X36 STR	
08-012-001	CORE TOROID R16	
02-055-001	IC, DIP8, DUAL VOLT COMPARATOR	U1 U6 U7 U8
02-079-001	MOSFET DRIVER MIC4451CT	U2
02-166-001	VOLT. REG. 1,5 AMP POSITIVE	U5
04-059-001	HEATSINK T0220 7022B-MT	U3 U10
04-060-001	HEATSINK CLIP T0220	U3 U10
11-003-001	THERMALLOY, THERMAL GREASE	
04-003-002	HEATSINK, PC MOUNT, TO-218	Q5 Q7 Q9
04-011-220	HEATSINK, CLIP-ON, TO-220	U4
20-009-001	PCB ASSY, MONO OUTPUT SEL	PCB 1
01-009-001	PCB MONO OUTPUT SELECT A1200	
02-047-102	CAP, RADIAL, POLYPROP, 2kV, 10%, 1000pF	C2
02-047-152	CAP RADIAL POLYPROP 2KV 10% 1500pf	C1
02-065-001	RELAY, SPST, HI-VOLT, 7.5KV	K1,K2
07-020-002	HEADER,SIP,R,A ,156 SPACE, 2	J2,J3,J4
07-008-103	HEADER, SIP,,1 SP, 3 PIN LKG	J1
15-013-001	LABEL GLOSSY WHITE POLYESTER	IMPRINT # IPL-20-009-001-PCB-SERIAL, COLOR: BLACK
05-006-003	TIE WIRE NYLON 40 LBS	FOR T1 T2 TR1
5113100136	TIE WRAP	FOR T3 T5 T6 T7
07-033-008	IC SOCKETS	FOR U1 U6 U7 U8
05-012-001	MOUNTING BLOCK PCB	PCB1 MAIN
04-025-001	SCREW PAN HEAD #4 3/8"	PCB1 MAIN
04-010-004	4-40 NYLON INSERT L/N ZN	Q5 Q7 Q9
04-008-007	SCREW, PAN HD, 4-40x1/2L	Q5 Q7 Q9
01-031-001	PCB MAIN A1250	
25-009-001	ASSY WIRE EXTENDED CONNECTOR	J16
07-007-003	INSULATION DISPLACEMENT 3 POS CONNECTOR	
09-008-003	WIRE 22 AWG 7 X 30 RED UL 1007	
09-008-003	WIRE 22 AWG 7 X 30 RED UL 1007	
09-008-002	WIRE 22 AWG BLACK 7 X 30 UL 1007	
02-008-100	RES,AXIAL,FX,1/4W,5% 10 OHM	R99
02-216-001	IC AUDIO AMP LM386	U9
02-211-005	VOLTAGE REGULATOR LM 2940	U10
02-211-015	VOLTAGE REGULATOR LM 2940	U3
02-211-012	VOLTAGE REGULATOR LM 2940	U4
07-070-008	HEADER 8-PIN 0.100" VERT,FRICTION LOCK	J12
19-036-001	TRANSFORMER SENSE A1250	T3 T5
08-012-001	CORE TOROID R16	
5156100040	HKUP WIRE,28AWG,TEFLON E RED 7X36 STR	
5156100039	28 AWG HOOK UP WIRE WHT 7X36 STR	
5156100006	TEFLON SLEEVING #18	
11-004-003	TAPE CLOTH ELECTRICAL	
02-008-000	RES, AXIAL, FX, 1/4W, 5% 0 OHM	R100
02-007-212	RES,AXIAL,FX,1/4W 1.30k OHM 1%	R49
02-131-001	RELAY MINIATURE 1 POLE 6 A	K1
02-183-022	CAP ELECTROLYTIC 50V 22uF	C74
02-202-470	MONOLITHIC CERAMIC CAPACITOR	C76 C78
02-052-002	PLUG SHORTING 2 PIN	J7
52-016-001	SCHEMATICS A1250 MAIN	
15-013-001	LABEL GLOSSY WHITE POLYESTER 1 x 0.375	IMPRINT # IPL-20-037-001-PCB-SERIAL, COLOR: BLACK
02-008-332	RES,AXIAL,FX,1/4W,5% 3.3K	
25-038-001	ASSY POWER HARNESS A1250	
5156100101	WIRE,# 16 AWG, WHITE 9916 26X30 STR	
09-006-006	WIRE 18 AWG 16/30 BLUE UL1015	
5158100006	HT SHR TB,3/8,BL,ALPHA FIT-105	
07-003-187	TERMINAL QUICK DISCONNECT AA-527	
07-003-250	TERMINAL QUICK DISCONNECT AA-5261	
5113100136	TIE WRAP	
02-008-472	RES AXIAL FX 1/4W 5% 4.7K OHMS	R11 R12 R13

SCHEMATIC 12 DISPLAY PRINTED CIRCUIT BOARDS

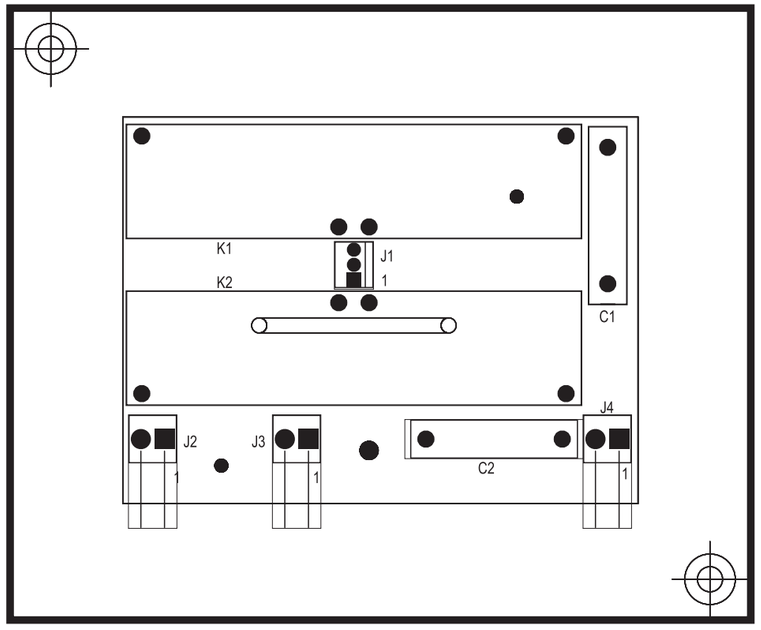


SILKSCREEN BOTTOM



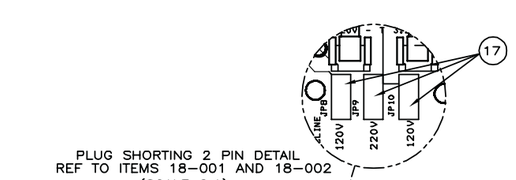
SILKSCREEN TOP

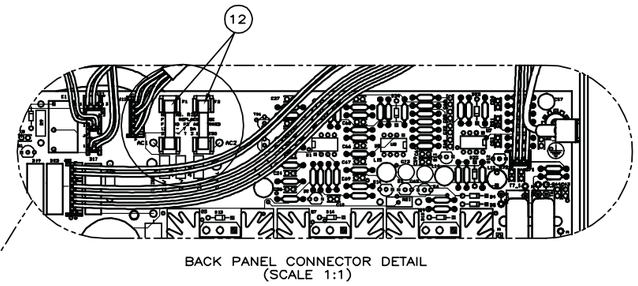
SCHEMATIC 13 RELAY PRINTED CIRCUIT BOARD

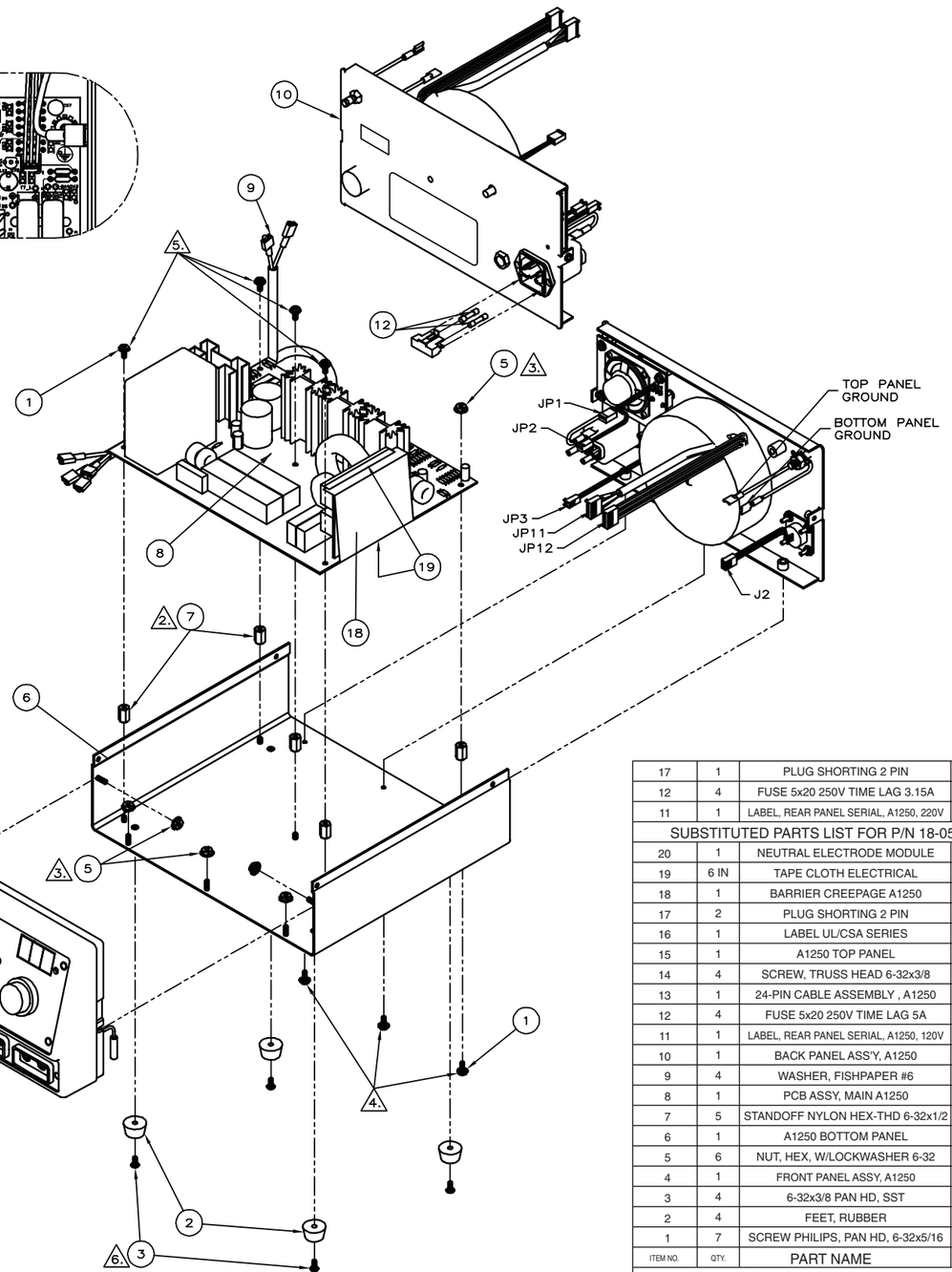


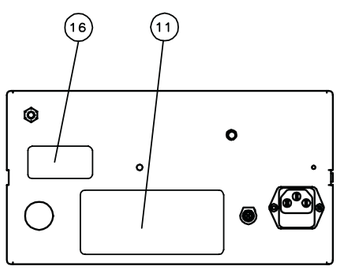
COMPONENT-ITEM	COMPONENT-DESCRIPTION	REF
20-009-001	PCB ASSY, MONO OUTPUT SEL	A1200
01-009-001	PCB MONO OUTPUT SELECT A1200	
02-047-102	CAP, RADIAL, POLYPROP, 2kV,	C2
02-047-152	CAP RADIAL POLYPROP 2KV 10%	C1
02-065-001	RELAY, SPST, HI-VOLT, 7.5KV	K1,K2
07-020-002	HEADER,SIP,R.A .156 SPACE, 2	J2,J3,J4
07-008-103	HEADER, SIP,.1 SP, 3 PIN LKG	J1
15-013-001	LABEL GLOSSY WHITE POLYESTER	IMPRINT # IPL-20-009-001 PCB-SERIAL COLOR: BLACK

SCHEMATIC 14 FINAL ASSEMBLY







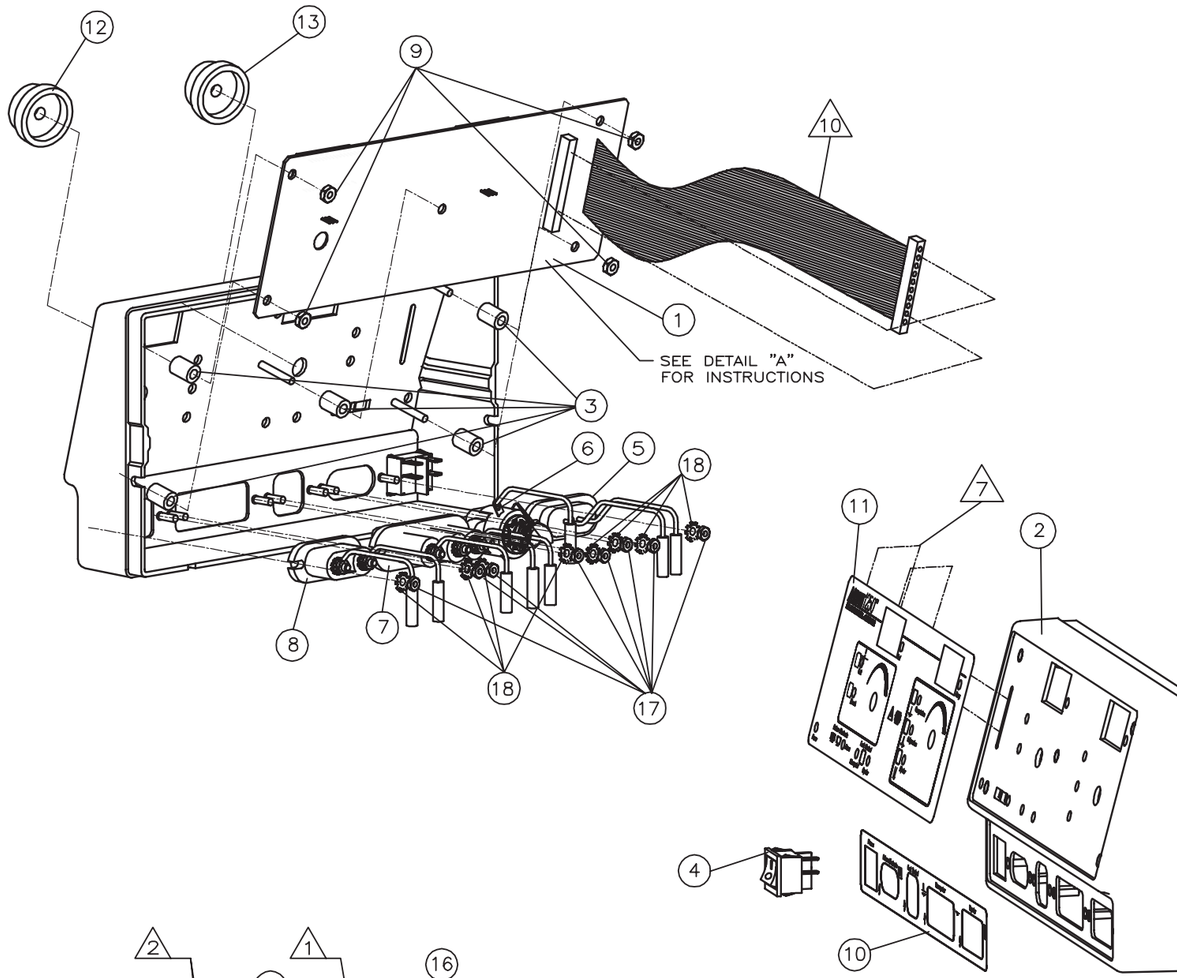


NOTES:(UNLESS OTHERWISE SPECIFIED)

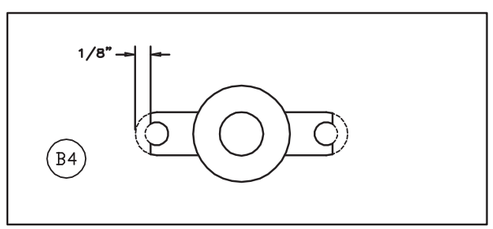
1. USE LOCTITE 242(BLUE) ON ALL FASTENERS.
2. TORQUE FOR ALL 6-32 NYLON STANDOFFS IS 4 IN/LBS, (5 PLCS).
3. TORQUE FOR ALL 6-32 NUTS IS 9 IN/LBS, (6 PLCS).
4. TORQUE FOR 6-32 SCREW IS 9 IN/LBS, (3 PLCS).
5. TORQUE FOR 6-32 SCREW IS 4 IN/LBS, (4 PLCS).
6. TORQUE FOR ALL 6-32 x 3/8 SCREWS IS 2 IN/LBS, (4 PLCS).
7. REFER TO PAGE #3 FOR A1250 FINAL ASSEMBLING INSTRUCTIONS.

17	1	PLUG SHORTING 2 PIN	02-052-002
12	4	FUSE 5x20 250V TIME LAG 3.15A	02-033-001
11	1	LABEL, REAR PANEL SERIAL, A1250, 220V	15-090-001
SUBSTITUTED PARTS LIST FOR P/N 18-057-002			
20	1	NEUTRAL ELECTRODE MODULE	18-027-001
19	6 IN	TAPE CLOTH ELECTRICAL	11-004-003
18	1	BARRIER CREEPAGE A1250	06-055-001
17	2	PLUG SHORTING 2 PIN	02-052-002
16	1	LABEL UL/CSA SERIES	15-085-001
15	1	A1250 TOP PANEL	10-042-001
14	4	SCREW, TRUSS HEAD 6-32x3/8	04-091-001
13	1	24-PIN CABLE ASSEMBLY , A1250	21-078-001
12	4	FUSE 5x20 250V TIME LAG 5A	02-033-500
11	1	LABEL, REAR PANEL SERIAL, A1250, 120V	15-089-001
10	1	BACK PANEL ASS'Y, A1250	18-051-001
9	4	WASHER, FISHPAPER #6	05-051-006
8	1	PCB ASSY, MAIN A1250	20-037-001
7	5	STANDOFF NYLON HEX-THD 6-32x1/2	05-038-003
6	1	A1250 BOTTOM PANEL	10-041-001
5	6	NUT, HEX, W/LOCKWASHER 6-32	04-020-006
4	1	FRONT PANEL ASSY, A1250	18-053-001
3	4	6-32x3/8 PAN HD, SST	5124632054
2	4	FEET, RUBBER	05-039-001
1	7	SCREW PHILIPS, PAN HD, 6-32x5/16	04-005-104
ITEM NO.	QTY.	PART NAME	PART NO.
PARTS LIST FOR P/N 18-057-001			

SCHEMATIC 15 FRONT PANEL ASSEMBLY



DETAIL "A"

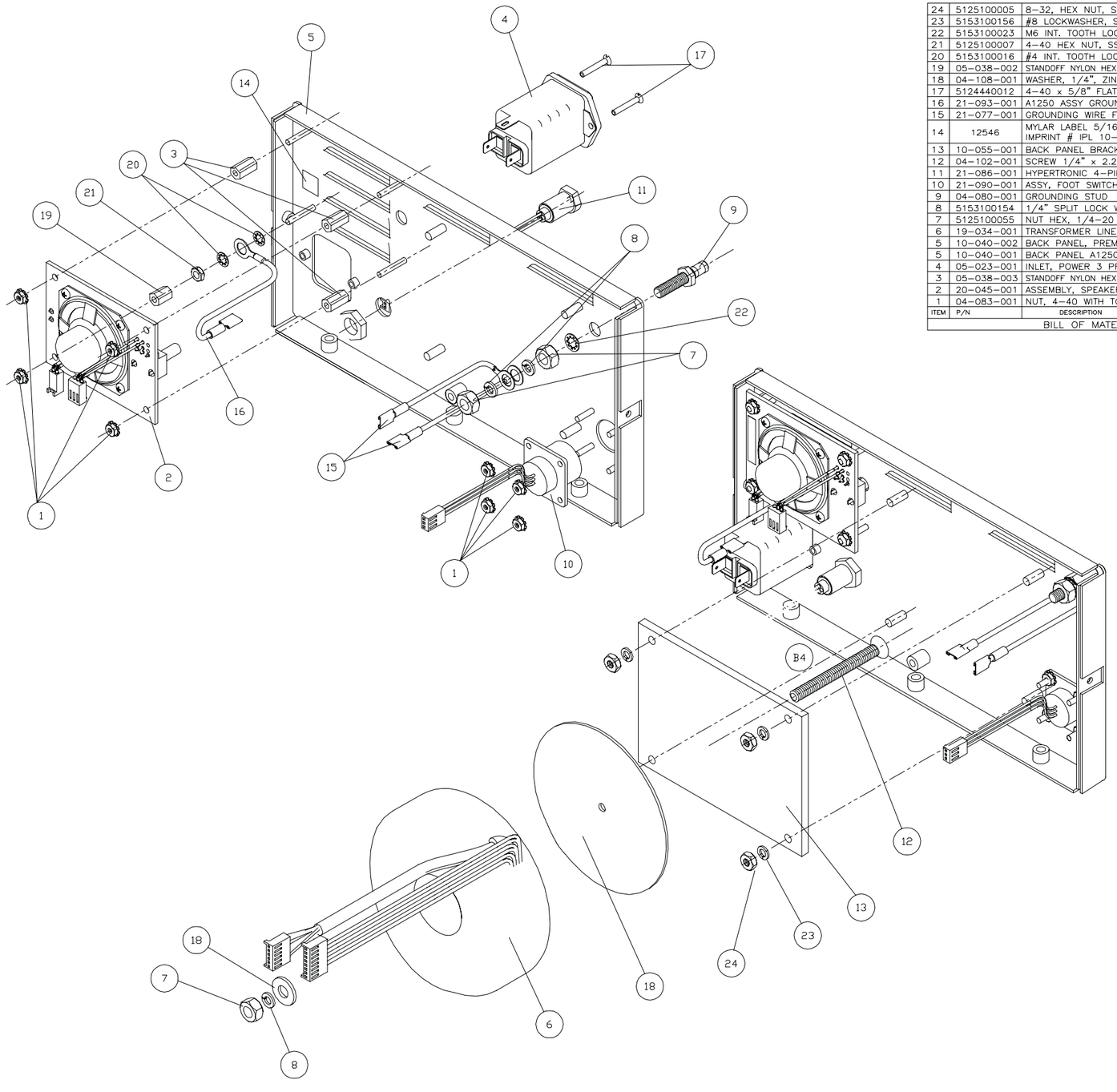


DETAIL "B"

ITEM	P/N	DESCRIPTION	QTY
19	53-012-001	PROGRAM CPLD 1250 SERIES	REF
18	04-018-006	#6 EXTERNAL TOOTH LOCKWASHER	8
17	5125100008	6-32 HEX NUT, SST, .09 THK, 1/4 DR	8
16	22-012-001	CONFIG. EEPROM PROGRAMMED A1250	1
15	22-009-001	EEPROM PROGRAMMED A1250A	1
14	22-008-001	EEPROM PROGRAMMED A1250B	1
13	05-034-001	KNOB 1.25 DIA 1/4 SHAFT YELLOW	1
12	05-033-001	KNOB 1.25 DIA 1/4 SHAFT BLUE	1
11	15-079-001	TOP OVERLAY, A1250	1
10	15-080-001	BOTTOM OVERLAY, A1250	1
9	04-020-006	NUT, HEX W/LOCKWASHER, 6-32	4
8	21-073-001	ASSY BIPOLAR CONNECTOR	1
7	21-074-001	ASSY MONOPOLAR CONNECTOR	1
6	21-075-001	ASSY MONOFOOT CONNECTOR	1
5	21-076-001	ASSY NEUTRAL ELECTRODE CONNECTOR	1
4	07-044-001	SWITCH ON/OF DPST BLK SNAP-MT 10A	1
3	05-041-001	STANDOFFS FOR DISPLAY PCB	5
2	06-053-001	FRONT PANEL, WHITE MOLDING ASSY	1
1	20-033-001	PCB. ASSY, DISPLAY A1250	1

SCHEMATIC 16 BACK PANEL ASSEMBLY

ITEM	COMPONENT - DESCRIPTION
Parent Item: 20-045-001	ASSY SPEAKER A1250
04-083-001	NUT 4-40 WITH TOOTHWASHER
02-218-001	POTENTIOMETER CARBON 1/8W 10K OHM
01-028-001	A2100 SPEAKER PCB
09-007-004	WIRE,HOOK-UP TEFLON, 24 AWG GREEN UL 1180
09-007-003	WIRE,HOOK-UP TEFLON, 24 AWG RED UL 1180
5108100018	CRIMP TERM, FOR .1" HSG, 22-30AWG
07-058-003	CONNECTOR HOUSING 3 CIRCUIT
5141100000	SPEAKER.MOUSER
07-058-002	CONNECTOR HOUSING
5124440001	SCREW 4-40 x 1/4, PAN HD,PH,SST



ITEM	P/N	DESCRIPTION	QTY
24	5125100005	8-32, HEX NUT, SST	4
23	5153100156	#8 LOCKWASHER, STEEL	4
22	5153100023	M6 INT. TOOTH LOCKWASHER, SST	1
21	5125100007	4-40 HEX NUT, SST, 3/16 ACR, FLAT	1
20	5153100016	#4 INT. TOOTH LOCKWASHER, PHOS BRZ.	2
19	05-038-002	STANDOFF NYLON HEX-THREADED 6-32 x .375	1
18	04-108-001	WASHER, 1/4", ZINC	1
17	5124440012	4-40 x 5/8" FLAT HD, PLT, STL	2
16	21-093-001	A1250 ASSY GROUNDING WIRE 6"	1
15	21-077-001	GROUNDING WIRE FOR A1250, 5.5"	2
14	12546	MYLAR LABEL 5/16" x 1/2" IMPRINT # IPL 10-001-002	1
13	10-055-001	BACK PANEL BRACKET, A1250	1
12	04-102-001	SCREW 1/4" x 2.25" FH	1
11	21-086-001	HYPERTRONIC 4-PIN PLUG ASSEMBLY	1
10	21-090-001	ASSY, FOOT SWITCH RECEPTACLE, A1250	1
9	04-080-001	GROUNDING STUD	1
8	5153100154	1/4" SPLIT LOCK WASHER	3
7	5125100055	NUT HEX, 1/4-20	3
6	19-034-001	TRANSFORMER LINE 1250 SERIES	1
5	10-040-002	BACK PANEL, PREMIER	1
5	10-040-001	BACK PANEL A1250	1
4	05-023-001	INLET, POWER 3 PRONG, FILTERED	1
3	05-038-003	STANDOFF NYLON HEX-THREADED 6-32 x .500	3
2	20-045-001	ASSEMBLY, SPEAKER A1250	1
1	04-083-001	NUT, 4-40 WITH TOOTH WASHER	8

BILL OF MATERIAL